## Our Street Rod and Performance Ring Packages

ne Building and Power Techniques. W

Absolutely The Most Motor For Your Money

Last month we discussed the factory ring packages and the differences in them. This month we will look at our ring packages that are performance orientated. I often have customers in the shop that think that if they are building a racing engine that will run for only half of a racing season before a freshen is needed or a street rodder that is only going to put on 500 miles a year thinking that a cheap ring package will do the job. This is far from the reality of a true performance engine. The stresses that the performance ring package goes through can break down the rings quite quickly. It all depends on horsepower, heat, RPM, compression, ignition, timing, and fuel and is primarily based on cycles, the more constant RPM the less service life in the ring package. Some drag engine ring packages need to be freshened every 50 passes, or less than 13 miles. Circle track packages can vary but it is common to freshen in 20 shows or less than 200 miles. Pro Street engines can expect a freshen up in 5000 miles. The better the ring composition the more service can expected.

BY SCOTT SEAR

To make power the performance ring package is very different than factory. The ring surface area, tension, material, and shape are all considered in our custom ring packages. The job of the ring is to seal the combustion to harness as much of the energy as possible to transfer the most power to the rotating crankshaft with as little drag as possible. Drag will use up some of the energy before it reaches the crankshaft. The width of the rings will be narrower but must not be too narrow to decrease service life or sacrifice sealing. Surface area is a calculation based on many different things such as compression pressure, rpm and power adders. The shape depends on power demands and compression ratio. Ring tension is a fine science, if it is too tight, power and life will decrease, if the tension is too



light ring flutter can occur witch decreases power by letting energy past the rings into the crankcase and can cause the rings to fracture. There are so many variables in the best ring package for a particular use that constant study is needed for a successful build. There are many materials from which to choose ranging from ductile iron, chrome, moly, plasma moly, coated, and diamond just to name some of the current combinations. Usually most ring packages are available in classic, file fit or gap less design.

Here at Sehr Performance we look at the performance ring package as a key part of the science in every engine we build. Our customers enjoy the science and hard work we put into all of our engines so the "EXTRAMILE" is achieved.